ABSTRACT

Disclosed is a stent that has flexible connecting links that have a strut width as measured in a direction that is generally along the surface of the stent that is smaller than the wall thickness of the stent as measured in a radial direction from the stent's longitudinal axis. The strut width for a coronary stent should be less than 0.10 mm to provide good flexibility while the wall thickness should be greater than 0.10 mm to provide good stent radiopacity. Ideally the ratio of the width to the thickness should be less than 1.0 and preferably less than 0.08 mm and the nominal wall thickness would typically be 0.12 mm. The combination of thin strut width and thick wall thickness will allow the flexible link to easily lengthen and shorten for increased stent flexibility while making the link relatively stiff with respect to bulging inward into the lumen of the stent. This stiffness enhances the ability of the link to push outward against plaque in a coronary artery after the stent is deployed. In addition to improved flexibility, the thin width of the flexible links allow them to stretch during stent expansion thus reducing foreshortening of the deployed stent.